

WE CLAIM:

1. A method of programming cyclical machines, in particular production machines, characterized by the following successive steps:
  - a) creating an industrial controller equipped with a runtime system and having prioritized running levels and tasks, at least one sequential running level being created;
  - b) formulating a machine sequence in a sequential program; and
  - c) in the sequential program, providing by specific mechanisms that the waiting for conditions to be satisfied can be carried out with high priority and after the condition has been satisfied, the subsequent program sequence can be carried out with high priority up to a defined user-programmed end, the running levels being assigned system and/or user programs.
2. The method of programming according to claim 1, wherein the running levels are created from system levels and/or user levels.
3. The method of programming according to claim 1, wherein the running level model is clocked, the basic clock being derived from an internal timer or from an internal clock of a communication medium or from an external device or from a variable which belongs to the technological process.